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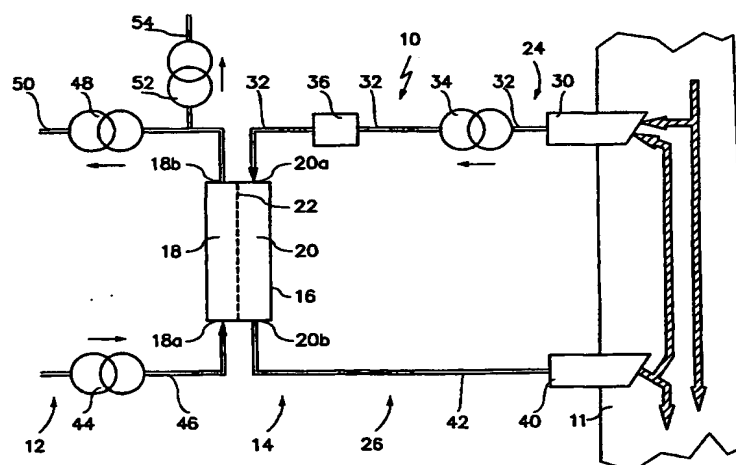
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(54) Title: **DEVICE AND A METHOD FOR DETERMINING BLOOD RECIRCULATION IN A VASCULAR ACCESS**



(57) Abstract: A method is described for determining recirculation of blood in a vascular access (11) of a patient undergoing dialysis treatment by means of a dialysis machine (10) comprising an arterial line (24) for withdrawing blood from the patient's body, a dialysis filter (16), and a venous line (26) for returning the blood to the patient's body. The present method consists in inducing, in the blood flowing in the venous line (26), a disturbance of a magnitude such as to bring the system into a transient state and determining blood recirculation in the vascular access (11) during the transient state as a function of the magnitude of the disturbance induced in the arterial line (24). In particular, the aforesaid disturbance consists of the variation of the haemoglobin concentration in the blood flowing in the venous line (26) and the variation is caused by controlling a change in the ultrafiltration flow in dialysis filter (16).

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